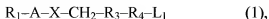


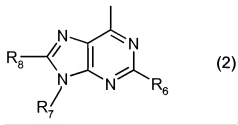
## AMENDMENTS TO THE CLAIMS

**I. (Currently amended)** A compound of formula (1)



wherein:

A is a group recognized by O<sup>6</sup>-alkylguanine-DNA-alkyltransferases (AGT) as a substrate  
the group R<sub>1</sub>-A is a purine radical of formula (2)



X is oxygen ~~or sulfur~~;

R<sub>1</sub> is a group -R<sub>2</sub>-L<sub>2</sub> or a group R<sub>5</sub>;

R<sub>2</sub> and R<sub>4</sub> are, independently of each other, a linker, straight or branched chain alkylene group or polyvalent branched chain alkyl group with 1 to 300 carbon atoms, wherein optionally  
(a) one or more carbon atoms are replaced by oxygen;

(b) one or more carbon atoms are replaced by nitrogen carrying a hydrogen atom, and the adjacent carbon atom is substituted by oxo;

(c) one or more carbon atoms are replaced by oxygen, and the adjacent carbon atom is substituted by oxo;

(d) the bond between two adjacent carbon atoms is a double or a triple bond;

(e) one or more carbon atoms are replaced by a phenylene, a saturated or unsaturated cycloalkylene, a saturated or unsaturated bicycloalkylene, a bridging heteroaromatic or a bridging saturated or unsaturated heterocyclyl group;

(f) two adjacent carbon atoms are replaced by a disulfide linkage;

or a combination of two or more alkylene and/or modified alkylene groups as defined under (a) to (f) above, optionally containing substituents;

R<sub>3</sub> is an aromatic or a heteroaromatic group, or an optionally substituted 1-alkenylene, 1-alkynylene, 1-cycloalkenylene, or an unsaturated alkyl, cycloalkyl or heterocyclyl group with the double bond connected to CH<sub>2</sub>;

~~R<sub>5</sub> is arylmethyl or heteroarylmethyl or an optionally substituted cycloalkyl, cycloalkenyl or heterocyclyl group;~~

R<sub>6</sub> is hydrogen, hydroxy or unsubstituted or substituted amino;

one of R<sub>7</sub> and R<sub>8</sub> is R<sub>1</sub> and the other one is hydrogen; and

L<sub>1</sub> is a label, and L<sub>2</sub> are

one or a plurality of same or different labels selected from the group consisting of a spectroscopic probe, a magnetic probe, a contrast reagent, a radioactive moiety, avidin, streptavidin, biotin, a moiety which is capable of crosslinking to other molecules selected from the group consisting of a maleimide, active ester, azide and benzophenone, a tethered metal-chelate which is capable of generating hydroxyl radicals upon exposure to H<sub>2</sub>O<sub>2</sub> and ascorbate, malachite green, a moiety covalently attached to a solid support, a lipid, methotrexate, a linear poly(arginine) of D- and/or L-arginine with 6-15 arginine residues, a linear polymer of 6-15 subunits each carrying a guanidinium group, oligomers or short-length polymers of 6-50 subunits, a portion of which have attached guanidinium groups, and parts of a sequence of a HIV-tat protein;

or L<sub>1</sub> is a bond connecting R<sub>4</sub> to A forming a cyclic substrate, ~~or~~ a further group -R<sub>3</sub>-CH<sub>2</sub>-X- A-R<sub>1</sub>, or a nucleic acid or a derivative thereof capable of undergoing base-pairing with its complementary strand; and/or

L<sub>2</sub> is a nucleic acid or a derivative thereof capable of undergoing base-pairing with its complementary strand if R<sub>7</sub> is hydrogen~~label or a plurality of same or different labels.~~

**2. (Currently amended)** The compound according to claim 1, ~~of formula (1)~~ wherein

~~A is a heteroaromatic group containing 1 to 5 nitrogen atoms;~~

~~X is oxygen;~~

~~R<sub>4</sub> is a group -R<sub>3</sub>-L<sub>2</sub> or a group R<sub>3</sub>;~~

~~R<sub>2</sub> and R<sub>4</sub> are, independently of each other, a straight or branched chain alkylene group with 1 to 300 carbon atoms, wherein optionally~~

~~(a) one or more carbon atoms are replaced by oxygen, in particular wherein every third carbon atom is replaced by oxygen, e.g. a polyethyleneoxy group with 1 to 100 ethyleneoxy units;~~

(b) one or more carbon atoms are replaced by nitrogen carrying a hydrogen atom, and the adjacent carbon atoms are substituted by oxo, representing an amide function

$\text{—NH—CO—}$ ;

(c) one or more carbon atoms are replaced by oxygen, and the adjacent carbon atoms are substituted by oxo, representing an ester function  $\text{—O—CO—}$ ;

(d) the bond between two adjacent carbon atoms is a double or a triple bond, representing a function  $\text{—CH=CH—}$  or  $\text{—C}\equiv\text{C—}$ ;

(e) one or more carbon atoms are replaced by a phenylene, a saturated or unsaturated cycloalkylene, a saturated or unsaturated bicycloalkylene, a bridging heteroaromatic or a bridging saturated or unsaturated heterocyclyl group;

(f) two adjacent carbon atoms are replaced by a disulfide linkage  $\text{—S—S—}$ ; or a combination of two or more, especially two or three, alkylene and/or modified alkylene groups as defined under (a) to (f) hereinbefore, optionally containing substituents;

$R_3$  is ~~phenyl~~phenylene, an unsubstituted or substituted mono- or bicyclic bridging heteroaryl group of 5 or 6 rings atoms comprising zero, one, two, three or four ring nitrogen atoms and zero or one oxygen atom and zero or one sulfur atom, with the proviso that at least one ring carbon atom is replaced by a nitrogen, oxygen or sulfur atom, ~~1-alkenyl, 1-alkinyl, 1-cyclohexenyl~~ 1-alkenylene, 1-alkinylene, 1-cyclohexenyne with 3 to 7 carbon atoms, wherein the double or triple bond is connected to  $\text{CH}_2$ , or an optionally substituted unsaturated bridging heterocyclyl group with 3 to 12 atoms and 1 to 5 heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur, and a double bond in the position connecting the heterocyclyl group to methylene- $\text{CH}_2$ ; and

$R_5$  is optionally substituted phenylmethyl or naphthylmethyl; optionally substituted heteroarylmethyl wherein heteroaryl is a mono- or bicyclic heteroaryl group comprising zero, one, two, three or four ring nitrogen atoms and zero or one oxygen atom and zero or one sulfur atom, with the proviso that at least one ring carbon atom is replaced by a nitrogen, oxygen or sulfur atom, and which has 5 to 12 ring atoms; optionally substituted cycloalkyl with 3 to 7 carbon atoms; optionally substituted cycloalkenyl with 5 to 7 carbon atoms; or optionally

substituted saturated or unsaturated heterocyclyl with 3 to 12 atoms, and 1 to 5 heteroatoms selected from the group consisting of nitrogen, oxygen and sulfur;

~~L<sub>1</sub> is one or a plurality of same or different labels selected from a spectroscopic probe, a magnetic probe, a contrast reagent, a molecule which is one part of a specific binding pair which is capable of specifically binding to a partner, a molecule that is suspected to interact with other biomolecules, a library of molecules that are suspected to interact with other biomolecules, a molecule which is capable of crosslinking to other molecules, a molecule which is capable of generating hydroxyl radicals upon exposure to H<sub>2</sub>O<sub>2</sub> and ascorbate, a molecule which is capable of generating reactive radicals upon irradiation with light, a molecule covalently attached to a solid support, a nucleic acid or a derivative thereof capable of undergoing base pairing with its complementary strand, a lipid or other hydrophobic molecule with membrane inserting properties, a biomolecule with desirable enzymatic, chemical or physical properties, a bond connecting R<sub>4</sub> to A forming a cyclic substrate, and a further group —R<sub>3</sub>—CH<sub>2</sub>—X—A—R<sub>4</sub>;~~

~~L<sub>2</sub> is one or a plurality of same or different labels selected from a spectroscopic probe, a magnetic probe, a contrast reagent, a molecule which is one part of a specific binding pair which is capable of specifically binding to a partner, a molecule that is suspected to interact with other biomolecules, a library of molecules that are suspected to interact with other biomolecules, a molecule which is capable of crosslinking to other molecules, a molecule which is capable of generating hydroxyl radicals upon exposure to H<sub>2</sub>O<sub>2</sub> and ascorbate, a molecule which is capable of generating reactive radicals upon irradiation with light, a molecule covalently attached to a solid support, a lipid or other hydrophobic molecule with membrane inserting properties, and a biomolecule with desirable enzymatic, chemical or physical properties.~~

**3. (Cancelled)**

**4. (Currently amended)** The compound according to ~~claim 3~~ of formula (1) claim 1, wherein X is oxygen and R<sub>4</sub> is phenyl R<sub>3</sub> is phenylene.

- 5. (Currently amended)** The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein ~~X is oxygen and R<sub>2</sub> is thienyl~~ R<sub>3</sub> is thienylene.
- 6. (Currently amended)** The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein the group R<sub>4</sub>-A is a purine radical of formula (2), R<sub>6</sub> is unsubstituted amino, R<sub>7</sub> is R<sub>1</sub>, and R<sub>8</sub> is hydrogen, and X is oxygen.
- 7. (Currently amended)** The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein the group R<sub>4</sub>-A is a purine radical of formula (2), R<sub>6</sub> is unsubstituted amino, R<sub>7</sub> is a group -R<sub>2</sub>-L<sub>2</sub>, and R<sub>8</sub> is hydrogen, and X is oxygen.
- 8. (Currently amended)** The compound according to claim 7<sub>a</sub> wherein L<sub>2</sub> is a spectroscopic probe.
- 9. (Currently amended)** The compound according to claim 7<sub>a</sub> wherein L<sub>1</sub> and L<sub>2</sub> are spectroscopic probes.
- 10. (Currently amended)** The compound according to claim 9<sub>a</sub> wherein L<sub>1</sub> and L<sub>2</sub> represent a fluorescence donor / fluorescence quencher pair.
- 11. (Currently amended)** The compound according to claim 10<sub>a</sub> wherein L<sub>1</sub> and L<sub>2</sub> represent a FRET pair.
- 12. (Currently amended)** The compound according to ~~claim 3 of formula (1)~~ claim 1, wherein the group R<sub>4</sub>-A is a purine radical of formula (2), R<sub>6</sub> is unsubstituted amino, R<sub>7</sub> is a group R<sub>5</sub>, and R<sub>8</sub> is hydrogen, and X is oxygen.
- 13. (Currently amended)** The compound according to claim 12<sub>a</sub> wherein R<sub>5</sub> is cyclopentyl.

**14. (Currently amended)** The compound according to ~~claim 3 of formula (1)~~claim 1, wherein the group  $R_4-A$  is a ~~purine radical of formula (2)~~,  $R_6$  is unsubstituted amino,  $R_7$  is hydrogen, and  $R_8$  is  $R_1$ , ~~and X is oxygen.~~

**15. (Currently amended)** The compound according to ~~claim 3 of formula (1)~~claim 1, wherein the group  $R_4-A$  is a ~~purine radical of formula (2)~~,  $R_6$  is unsubstituted amino,  $R_7$  is hydrogen, and  $R_8$  is a group  $-R_2-L_2$ , ~~and X is oxygen.~~

**16. (Currently amended)** The compound according to claim 15<sub>1</sub> wherein  $L_2$  is a spectroscopic probe.

**17. (Currently amended)** The compound according to claim 15<sub>1</sub> wherein  $L_1$  and  $L_2$  are spectroscopic probes.

**18. (Currently amended)** The compound according to claim 17<sub>1</sub> wherein  $L_1$  and  $L_2$  represent a fluorescence donor / fluorescence quencher pair.

**19. (Currently amended)** The compound according to claim 18<sub>1</sub> wherein  $L_1$  and  $L_2$  represent a FRET pair.

**20. (Currently amended)** The compound according to claim 15<sub>1</sub> wherein  $L_2$  is avidin, streptavidin or biotina molecule representing one part of a specific binding pair.

**21. (Currently amended)** The compound according to claim 15<sub>1</sub> wherein  $L_2$  is a moiety ~~molecule~~ covalently attached to a solid support.

**22. (Currently amended)** The compound according to claim 15<sub>1</sub> wherein  $L_2$  is a linear poly(arginine) of D- and/or L-arginine with 6-15 arginine residues, a linear polymer of 6-15 subunits each carrying a guanidinium group, oligomers or short-length polymers of 6-50 subunits, a portion of which have attached guanidinium groups, or parts of a sequence of a HIV-tat protein-cell membrane transport enhancer group.

**23-43. (Cancelled)**

**44. (Currently amended)** A method for detecting and/or manipulating a protein of interest, wherein the protein of interest is ~~incorporated into~~ fused to an AGT-fusion-protein, the AGT fusion protein is contacted with a compound of formula (1) according to claim 1, and the AGT fusion protein is detected and optionally further manipulated using the label L<sub>1</sub> in a system designed for recognizing and/or handling the label.

**45. (Original)** The method according to claim 44, wherein in the compound of formula (1) label L<sub>2</sub> is a solid support, and the AGT fusion protein contacted with the compound of formula (1) is separated from the compound of formula (1) by filtration or centrifugation or separation of magnetic beads.

**46. (Currently amended)** The method according to claim 44, wherein in the compound of formula (1) label L<sub>1</sub> is one member and label L<sub>2</sub> the other member of two interacting spectroscopic probes L<sub>1</sub> / L<sub>2</sub>, wherein energy can be transferred nonradiatively through dynamic or static quenching, and the AGT fusion protein is detected by fluorescence.

**47. (Currently amended)** The method according to claim 44 for detecting and/or manipulating a protein of interest, wherein the protein of interest is fused with a mutant AGT, the mutant AGT fusion protein is contacted with a mixture of

(a) a compound of formula (1) wherein R<sub>1</sub> is a group R<sub>5,2</sub> and which is ~~not recognized by~~ does not react with the mutant AGT, and

(b) another compound of formula (1), ~~recognized by which reacts with~~ the mutant AGT fusion protein,

and the mutant AGT fusion protein is detected and optionally further manipulated using the label in a system designed for recognizing and/or handling the label.